



Quality Enhancement Research Initiative

HIV/AIDS

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The Human Immunodeficiency Virus (HIV) infection is a condition that causes a chronic progressive disease that leads to early death if untreated. HIV is characterized by persistent viral replication throughout an extended period of time in which patients experience few or no symptoms while their immune system is under siege. Over the course of 5 to 10 years, HIV typically results in significant immune depletion and dysfunction, chronic symptoms, and vulnerability to a variety of opportunistic conditions that characterize Acquired Immune Deficiency Syndrome (AIDS). There are 650,000 to 900,000 infected adults in the United States, and VA cares for about 17,000 HIV-infected patients each year, making it the largest provider of HIV care in the US.

The HIV/AIDS Quality Enhancement Research Initiative (QUERI-HIV) utilizes the QUERI process (see back page) to improve the quality of care and health outcomes of veterans with HIV. QUERI-HIV also produces critical information on best practices deemed essential for the effective care of veterans with HIV.

Since its inception in 1998, QUERI-HIV assisted in the creation of the AIDS Service's Center for Quality Management (CQM) in Palo Alto, CA and developed a number of proposals for both long and short-term research, many of which are now being implemented.

These projects include evidence-based reports on drug-drug interactions, feedback reports on the use of antiretroviral therapy and on the use of contraindicated medications, as well as the development of interactive web

pages on antiretroviral therapy and prescribing for patients with resistance. Currently, QUERI-HIV is working to translate the results of this research into practice.

QUERI HIV/AIDS and Translation 2000

The QUERI-HIV translation plan emphasizes the general importance of optimizing drug therapies and the need to implement change around a gap discovered in adequate antiretroviral prescribing practices. Most importantly, QUERI-HIV research indicates that variation in antiretroviral treatment exceeds clinical expectations and falls short of professional standards in some facilities, even when disregarding controversies about when to start treatment or highly active combinations.

For example, a preliminary finding showed that in the last quarter of 1998, 59 percent of HIV patients at a VA facility, on average, received highly active combination regimens, and 9 percent received sometimes acceptable, but less active, dual combination regimens. Thus, on average, only 68 percent of HIV veterans at a VA facility were receiving acceptable therapy, with a range across sites from 0 to 95 percent. QUERI-HIV research also shows that

some patients receive contraindicated antiretroviral medications.

QUERI-HIV translation activities will target HIV providers and will focus on optimizing the use of antiretroviral medications. A number of dissemination strategies aimed at changing provider behavior will be employed and evaluated. For example, QUERI-HIV will identify lead clinicians, produce accessible aggregate reports, and disseminate this information through electronic and other media. Dissemination tools also will include clinical reminders and a social-influence driven approach to establishing the Plan-Do-Check-Act (PDCA) cycle of continuous quality improvement. Intensive implementation programs at selected sites will also be evaluated.

QUERI-HIV Projects and Recent Findings

Here are just a few important areas of QUERI-HIV research and planned follow-up:

- *Veterans in care:* Pilot studies have shown an increasing number of HIV-infected veterans with comorbidities such as substance abuse and serious mental illness, or

The QUERI-HIV Executive Committee

Each QUERI Executive Committee is co-chaired by a research expert and a clinician. The QUERI-HIV Research Co-Chair is **Sam Bozzette, MD, PhD**, and Clinical Co-Chair is **Sophia Chang, MD, MPH**. QUERI-HIV's Executive Committee includes 12 other experts in the field of HIV/AIDS: Steven Asch, MD, MPH, Allen Gifford, MD, Matthew Goetz, MD, John Hamilton, MD, Martin Lee, PhD, Terry Menke, PhD, Douglas K. Owens, MD, MSc, Douglas Richman, MD, Michael Simberkoff, MD, Greer Sullivan, MD, MSPH, and Ex-Officio Members, Barbara Phillips, PhD and Lisa Rubenstein, MD, MSPH.

both. QUERI-HIV anticipates proposing additional research on the management and outcomes of these conditions and how they relate to HIV and its treatment.

- *Veterans not in care and those in care outside VHA:* QUERI-HIV is addressing several issues including veterans not in care and those who receive care outside VHA. While there are gaps in the knowledge about those with HIV infection who are not in care, research shows that minorities and other disadvantaged groups have inferior access to services. While economic barriers and fear of stigma may explain some lack of care, other barriers exist. QUERI-HIV will work to further assess any gaps that affect veterans with HIV who are not in care. Research also shows that veterans in care outside VHA, after adjusting for demographic and disease stage, are less likely to be uninsured than non-veterans. Thus VHA provides an effective “safety net.”

- *Metabolic disorders:* Over the past several years, lipodystrophy (defective metabolism of fat) has been recognized as a complication of HIV disease and treatment, particularly treatment with protease inhibitors. In addition, there is now increasing concern regarding hyperlipidemia, osteoporosis, and the potential for an increased risk of cardiovascular events (i.e., myocardial infarction). QUERI-HIV has secured funding for a project to study the impact of highly active antiretroviral therapy on serious cardiovascular events.
- *Antiretroviral and prophylaxis treatment:* There is increasing unease that guidelines for antiretroviral and prophylaxis treatment of opportunistic infections may be too aggressive, and many practitioners concerned about the risk of side effects are advocating a more conservative approach. QUERI-HIV will continue to closely monitor this treatment evolution when planning quality improvement efforts.

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QUERI currently focuses on eight conditions that are prevalent and high-risk among veteran patients: Chronic Heart Failure, Diabetes, HIV/AIDS, Ischemic Heart Disease, Mental Health, Spinal Cord Injury, Stroke, and Substance Abuse.

The QUERI Process

The QUERI process includes six steps:

- 1) identify high-risk/high volume diseases or problems;
- 2) identify best practices;
- 3) define existing practice patterns and outcomes across VA and current variation from best practices;
- 4) identify and implement interventions to promote best practices;
- 5) document that best practices improve outcomes; and
- 6) document that outcomes are associated with improved health-related quality of life and systems improvements.

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VA's Research and Development QUERI Website:

<http://www.va.gov/resdev/queri.htm>

QUERI-HIV direct web link: <http://va-queri-hiv.ucsd.edu/>

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